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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,305	11/08/2001	Bruno Borsoi	P21570	5187

7055 7590 04/06/2007  
GREENBLUM & BERNSTEIN, P.L.C.  
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RESTON, VA 20191

EXAMINER
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PHAM, HUONG Q

ART UNIT	PAPER NUMBER
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3772

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/06/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/06/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

09/986,305

Applicant(s)

BORSOI, BRUNO

Examiner

Huong Q. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/26/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 and 25-54 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-23, 25-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

The amendment filed on 12/26/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The last paragraph of claim 54 is not supported by the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 50-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“opposed transverse sides” lack proper antecedent basis. It's unclear what structures are these “opposed transverse sides”.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 8-9, 13-14, 16, 18, 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Dachgruber et al ( 6,360,454).

As for claim 1, Dachgruber et al shows every claimed feature of the claim including a rigid frame 24 adapted to cover the joint, said rigid frame comprising means 98 or 100 ( note the edges of references 100, 98, and note that the frame 24 can be bent at a predetermined angle : note that this predetermined angle can be determined by a user who can either flexes the device 24 by the user's foot or hand; where opposed edges of structure 100, 98 will limit some degree further bending of the frame 24 and joint. Note that the apertures 100 or the notches 98 have abutting surfaces :abutting surfaces are the side-edges of apertures 100 or of notches 98 , and when the device 24 of Dachgruber et al is flexed at some degree, the abutting surfaces or edges are

capable of having the function to limit flexion to some degree) for allowing bending of the protective article and bending of the joint along at least one bending direction through a predetermined angle of bending ( the angle of bending can be determined by a user) , said means comprising at least one bending zone between opposed ends of the frame, said bending zone including at least one abutment 98 or 100 , with opposed edges, said opposed edges being spaced apart a predetermined amount in a first and unbent position of the protective article and spaced apart by an amount less than said predetermined amount in a second and bent position of the protective article, in said second and bent position of the protective article, said abutment of said means for allowing bending comprising means 102 for limiting bending of the frame and limiting bending of the joint along said bending direction at said predetermined angle of bending, said rigid frame 24 having a rigidity of a magnitude capable of avoiding hyperflexion of the joint beyond said predetermined angle of bending ( note that the predetermined angle of bending is determined by a user's hand or foot) while the protective article is in said second and bent position. Also, note that the stiffener adjusters 102 assist in limiting or resisting flexion of the device 24. As for claim 3, note membrane 37 , and note column 4, lines 11-16 of Dachgruber et al (the recess 40 may be made substantially the same size as the tongue stiffener). Note that when the recess 40 is made to have the same size as the tongue stiffener : this means that the frame or stiffener 24 is being fixed on ( by hook 50 and structure 52) and overlying membrane 37 against movement along the membrane ( or the base). As for claim 13, note the means 120b ( figure 1) for a boot tightening means, and note rigid frame 24 includes

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cooperating mechanism ( the surface of frame 24) complementary of and engaged with the boot tightening means. As for claim 16, note that Dachgruber et al 's protective article is can be bent at a predetermined angle of between 30 and 45 degree by a user ( using the user's hand or foot).

Claims 1- 9, 14, 16-23, 25-39, 40-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Rathmell ( 3,968,578).

As for claim 1, Rathmell shows every claimed feature of the claim including a rigid frame 8 adapted to cover the joint, said rigid frame comprising means for allowing bending of the protective article and bending of the joint along at least one bending direction through a predetermined angle of bending ( the angle of bending can be determined by a user) , said means comprising at least one bending zone between opposed ends of the frame, said bending zone including at least one abutment with opposed edges, said opposed edges being spaced apart a predetermined amount in a first and unbent position of the protective article and spaced apart by an amount less than said predetermined amount in a second and bent position of the protective article, in said second and bent position of the protective article, said abutment of said means for allowing bending comprising means for limiting bending of the frame and limiting bending of the joint along said bending direction at said predetermined angle of bending, said rigid frame having a rigidity of a magnitude capable of avoiding hyperflexion of the joint beyond said predetermined angle of bending while the protective article is in said second and bent position. As for claim 3, note membrane 5 . As for

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claims 4, 22, note the compressible material 5. As for claim 5, note that the supports at ends of frame 8. As for claims 6, 7, note envelope 1, 2 ( frame 8 is overlying envelope 1,2 at the two ends of frame 8) , one pocket at one end of frame 8 formed by the inside surface of frame 8, and a shock absorbing element 5 . As for claim 16, the device is capable of being bent by a user at the angle of between 30 – 45 degrees. Note that the bending angle(s) can be determined by a user. As for claim 18, note frame 8 and membrane 5. As for claim 25, note the base 5. As for claim 26, note that the middle part of frame 8 is thicker than the two ends ( the support areas) of frame 8. As for claim 27, note the shock absorbing element 5. As for claim 28, note the shock absorbing element 5 being positioned within a pocket ( formed by the inside surface of frame 8). As for claim 29, note that the device of Rathmell is capable to have the range of bending as recited, and the amount or angle of bending can be controlled by the user .As for claim 33, note the compressible insert 5. As for claim 40, note the longitudinal opening and the tongue 2, 5, 7 extending across the longitudinal opening, and frame 8 is fixed to tongue 2,5,7. As for claim 47, note that the device is capable of providing a range of bending with the angle movement of no greater than 45 degrees.

Claims 1-2, 4-5, 8-9, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Rathmell ( 4,043,059).

As for claim 1, Rathmell shows every claimed feature of the claim including a rigid frame 4, 5 adapted to cover the joint, said rigid frame comprising means 4, 5, and the stiffening member of figure 4 for allowing bending of the protective article and

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bending of the joint along at least one bending direction through a predetermined angle of bending ( the angle of bending can be determined by a user) , said means comprising at least one bending zone between opposed ends of the frame, said bending zone including at least one abutment 5 with opposed edges, said opposed edges being spaced apart a predetermined amount in a first and unbent position of the protective article and spaced apart by an amount less than said predetermined amount in a second and bent position of the protective article, in said second and bent position of the protective article, said abutment of said means for allowing bending comprising means for limiting bending of the frame and limiting bending of the joint along said bending direction at said predetermined angle of bending, said rigid frame having a rigidity of a magnitude to avoid hyper- flexion of the joint beyond said predetermined angle of bending while the protective article is in said second and bent position. As for claim 2, note figure 1. As for claim 4, note the insert in figure 4. As for claim 5, the supports in figure 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2, 4- 7, 15, 17, 19-23, 25- 40, 43, 46- 47, 49, 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dachgruber et al ( 6,360,454) in view of Rathmell ( 3,968,578) and Filice ( 6,381,877).

Note the comments above for the teachings of Dachgruber et al and Rathmell. Dachgruber et al also teaches a boot with a longitudinal opening , tongue 22 extends across the longitudinal opening, a frame 24 mounted upon the tongue, a lacing extends across the longitudinal opening, means 120b ( figure 1) for a boot tightening means, and note that rigid frame 24 includes cooperating mechanism( the surface of frame 24 forming a cooperating mechanism) complementary of and engaged with the boot tightening means. Rathmell and Filice teach beveled notches in a bending zone, wherein the bending zone has a thickness thicker than the thickness of the supports. In view of the teachings of Rathmell and Filice, it would have been obvious to one ordinary skill in the art at the time the invention was made to make the notch(es) of Dachgruber et al beveled and to make the bending zone has a thickness thicker than the thickness of the supports in order to assist in limiting the bending of the stiffener frame 24. As for claim 53, note that the tongue 22 of Dachgruber et al is capable of being positioned beneath the upper , and the lacing is capable of being extended across the longitudinal opening above the frame 24 and above the tongue 22.

Claims 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rathmell ( 3,968,578) .

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Note the comments above for the teaching of Rathmell. The provisions for boot tightening means, cooperating mechanism, a recess in an area for accommodating toes of a wearer, are well-known and well within the realm of one ordinary skill in the art. For example, Dachgruber et al teaches a boot with a frame 24 mounted upon the tongue, a lacing extends across the longitudinal opening, means 120b ( figure 1) for a boot tightening means, and note that rigid frame 24 includes cooperating mechanism( the surface of frame 24 forming a cooperating mechanism) complementary of and engaged with the boot tightening means. Therefore , it would have been obvious to one ordinary skill in the art at the time the invention was made to provide these structure to any boot for securing means or for ventilation purpose.

Applicant's arguments filed on 12/26/2006 have been fully considered but they are not persuasive.

Note the comments and explanation relative to the claims above. Note the comments relative to the claims above for the teaching of Dachgruber . Applicant argues that no structure of the stiffener of Dachgruber is provided for limiting flexion. The examiner does not agree. Note that the stiffener 24 is there to assist in limiting flexion. Also, note abutment 100, 102, or 98 of Dachgruber et al. Note that the edges of the apertures 100, or the edges of the notches 98 have abutting surfaces , and when the device 24 of Dachgruber et al is flexed or bent ( either by the foot or by the hand of a user) , the edges of the apertures or notches are abutted and therefore are capable of having the function of limiting or resisting flexion to some degree ( note that in claim 1,

the range of bending or angle is not recited) . Also, note that the stiffener adjuster(s) 102 assist in limiting or resisting flexion of the device 24. Applicant argues that applicant 's invention stops flexing at "certain angle". So is the device of Dachgruber.

Applicant argues that applicant's frame is fixed .....against movement along the membrane... Note column 4, lines 11-16 of Dachgruber et al (the recess 40 may be made substantially the same size as the tongue stiffener). Note that when the recess 40 is made to have the same size as the tongue stiffener : this means that the frame or stiffener 24 is being fixed on ( by hook 50 and structure 52) and overlying membrane 37 against movement along the membrane ( or the base).

Applicant argues that Rathmell's patents do not specify the bending angle. Note that the Rathmell's patents include structures as recited which are capable of being flexed by a user at the comfortable angle(s) which is determined by a user.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (571) 272-4980. The examiner can normally be reached on 8:45 AM - 5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on ( 571) 272 - 4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 28, 2007

  
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3/30/07